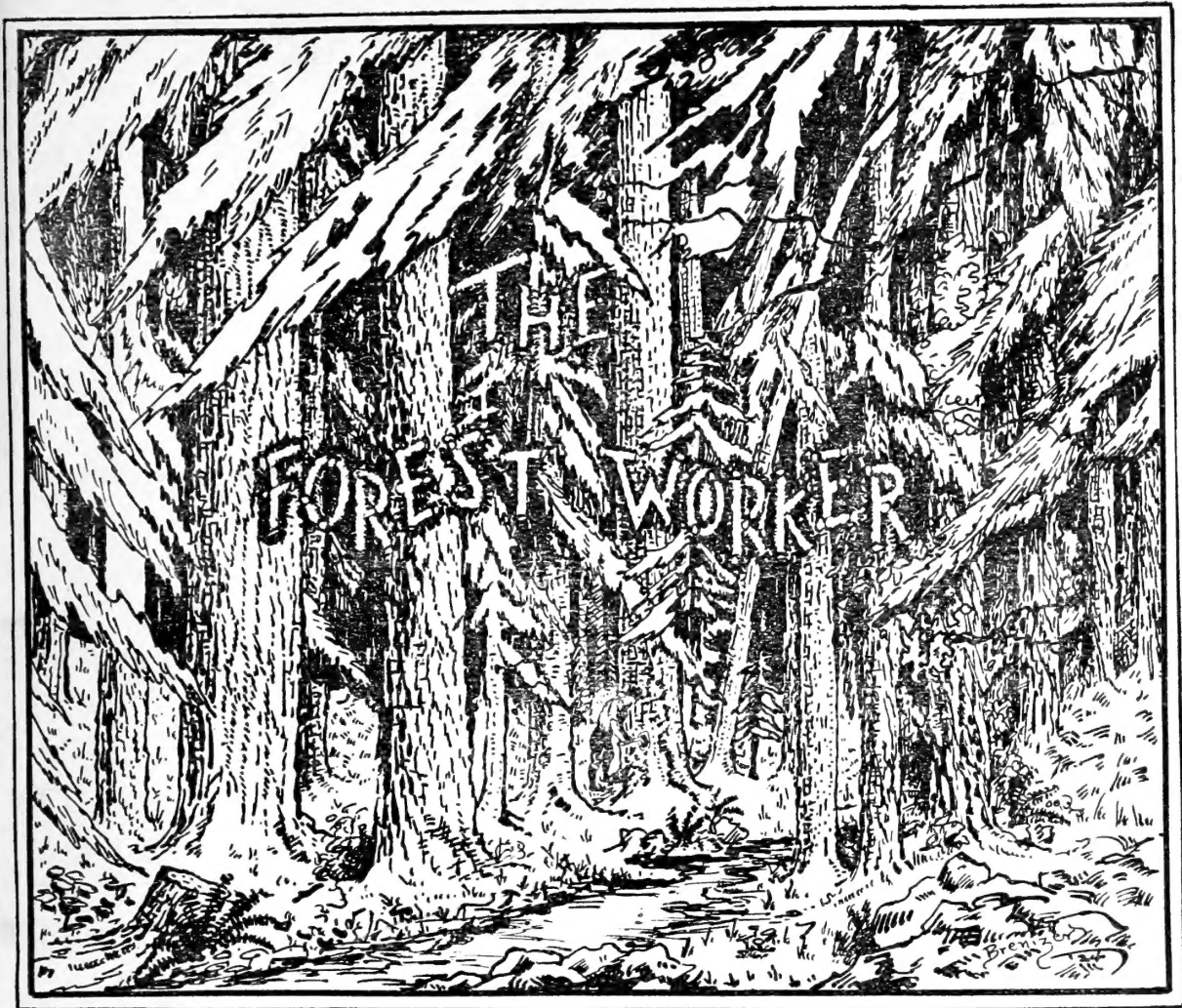


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

LIBRARY OF THE
OFFICE OF EXPERIMENT
FEB 25 1927
EXPERIMENT



SEPTEMBER 1924

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
RECEIVED

JAN 17 1977



PROCUREMENT SECTION
CURRENT SERIAL RECORDS

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

WASHINGTON D.C.

T H E F O R E S T W O R K E R

September, 1924

Published bimonthly by the Forest Service, U. S. Department
of Agriculture, Washington, D. C.

C O N T E N T S

	<u>Page</u>
Announcements	3
State forestry departments and organizations	4-20
Education and extension	21-22
Forest Service notes	23-29
Miscellaneous items	30-37
Personals	38-40
Articles, bibliographies, and publications	41-47

FOREWORD

E. A. Sherman, Associate Forester

The initial appearance of "The Forest Worker" calls for its formal introduction by the Forest Service. It also marks the beginning of a new effort in official American forestry. For nearly 20 years the major portion of the thought and labor of the Forest Service has necessarily been devoted to the creation, protection, and development of the 146 National Forests which embrace the 157,000,000 acres of Federal forest lands located in 27 States, Alaska, and Porto Rico.

The enactment of the Clarke-McNary law June 7, 1924, was the authoritative sanction of a greatly widening field for official forest workers. Forestry on privately-owned lands ceases to be of mere academic interest or an object of public propaganda. It is made the cooperative concern of the private owner, the State, and the nation. The authorization of a Federal appropriation of \$2,500,000 annually toward a nationwide forest fire department will go far toward making America safe for silviculture. This broadens the field of the official forest worker and increases his opportunities. At the same time it multiplies his responsibilities. Henceforth there will be a greatly increased demand for forest workers trained along lines essential to the redemption of such enlarged responsibilities.

"The Forest Worker" is the first contribution of the Forest Service toward the new system of American forestry. Cooperation is the motif of every section of the Clarke-McNary law. Whatever results are secured under it will be determined by the cordiality and effectiveness of our cooperation. "The Forest Worker" is expected to promote cooperation through mutual understanding and appreciation. While the Forest Service must accept responsibility for its form and contents, its pages are open to the forest worker in State, in forest school, and forest association work on the same basis as to those under Forest Service appointment.

Therefore, on behalf of this, our mutual organ, I extend greeting and welcome to the official forest workers of the country. A smile and a hearty handclasp, individually and collectively. Good morrow to each of you. "The Forest Worker" pins its faith on cooperation as the open sesame of American forestry. Let us cooperate.

ANNOUNCEMENTS

Pass It On!

Forestry friends and brethren, this "Worker" comes to you for news, opinions, and suggestions to pass on to your coworkers. When you do a good turn or hear of one by others, tell him about it; if you think the world is either good or bad try to convince him of it; if a corking good idea is bottled up in your head, turn it loose on him.

He is one of the circulating members of the Forestry Family and plans to call and see you every two months. Because he comes to you without cost it is hoped you won't consider him worthless and "good-for-nothing." He thrives on kindness and grows fat on paper pulp. This wanderer will invite you to "cast your bread upon the waters" and promise that it will be appreciated by the seven hundred or so on his calling list.

May you receive him in the same jolly, friendly, helpful spirit in which he comes. Especially may you invite him to your storehouse of valuable information which is unlocked by the magic words, "Pass it on."--Editor.

Conference of Forest Schools in Washington October 31 and November 1

After advice from many of the Deans of Forest Schools, Colonel Greeley decided to call a conference for the purpose of considering the relation of the Forest Schools and their graduates to the work of the Forest Service. The nature of Forest Service work, particularly the Ranger's work, has noticeably changed during the last ten years, and there is an increasing need for a larger percentage of Forest School graduates in ranger positions. This need and how it can be met by the Forest Schools is one of the important questions to be considered at this conference. It is expected that representatives of practically every Forest School in the country will be present.

STATE FOREST DEPARTMENTS AND ORGANIZATIONS

Federal Aid Enters Larger Field

J. G. Peters, Forest Service

Passage of the Clarke-McNary law means a broad extension of the State and private cooperative work which has been conducted under section 2 of the Weeks Law during the past thirteen years. Further, it provides an additional stimulus to the States which have yet to establish forestry departments to enact legislation that will enable them to qualify for the several kinds of Federal aid authorized by the Clarke-McNary law.

When the full authorization of \$2,500,000 yearly for the prevention and suppression of forest fires is appropriated, the Federal Government will then have met its responsibility in this basic activity, the Federal share of the cost being placed roughly at one-fourth. As a first step the Bureau of the Budget will be requested to approve for next year an appropriation of \$1,000,000, which is two and a half times the amount now available.

The area that may be protected is extended to include all forest lands; it is not restricted, as at present, to the forested watersheds of navigable streams. Another broadening feature is that which permits of including with the amount expended by the State such private expenditures for forest fire protection as are required by State law.

Investigations of forest taxation and timber insurance are also authorized.

Two more cooperative provisions of the Clarke-McNary law, which are filled with possibilities much larger than the yearly authorizations of \$100,000 each might indicate, are those for encouraging the reforestation of idle lands on the farm and the better management of farm timber. The first will be sought through the distribution of forest planting stock, and the second through assistance to farmers by the means of education, demonstration, and personal service.

All of these are cooperative provisions. The States have been asked to submit their views as to desirable and practicable methods of conducting the work authorized, and the information received will serve as a basis of procedure.

Good Resolutions and Press Comments in Georgia

At a recent meeting of the Georgia Press Association at Waycross, Georgia, a resolution was adopted indorsing the "Rountree-Haddock" forestry measure pending in the State legislature. This bill is designed to add to the investigative powers of the State Board of Forestry and enable it to function properly for State cooperation and aid to private forest owners.

"Not only has the attention of the public been called to the vitally important forestry bills before the present session of the general assembly - the Rountree-Haddock measure in the house, H.B. No. 652, and the bill introduced by Senator Mundy which is S.B. No. 216 - but widespread attention has been claimed by these essentials for an adequate State policy on forestry, and Georgia has the good wishes at this time of all people who have studied the forest situation throughout the country."--Atlanta Constitution.

"Of all bills now before the legislature, few are of an importance so fundamental or so far-reaching as that designed for the protection and replenishment of our forests. Every county, every farmstead, every industry, every home, every citizen, from the mountains to the tides, is concerned in this essential measure. Its passage will prevent millions of dollars of immediate loss, and will create hundreds of millions of ultimate wealth. Its rejection would accentuate ills that already are felt in every field of business and of public interest and would be nothing short of a disaster."--Atlanta Journal.

Enthusiasm for Forestry

First, last, and all the time, I am a forester. Forestry is not a local, State, or National problem; it is a world problem. We are passing through a new era in the development of civilization and also into a higher and better plane of individual and community living. Both our present standard of living and that which is to come in the future would be wholly impossible without the forest. Add to that the vital fact that the forests of the world are being consumed far more rapidly than they are being replaced. There is, therefore, a need now for forests and foresters never known before.--Gifford Pinchot, Penn. Department of Forests and Waters, "Service Letter."

Two Worth-While Forest Tax Reports

L. S. Murphy, Forest Service

An opportunity has been had recently to read the galley proofs of the reports of two forest tax investigations, one in New York State and the other in Wisconsin. Both are decidedly unique in that they approach the question from a wider angle than simply the interests of the forest owner and the promotion of forestry.

For the New York report, the State has had a "Joint Legislative Committee on Taxation and Retrenchment" at work for several years past making a critical survey of the entire financial structure of the State and local government units, their budgetary methods, administrative organization, revenue machinery, and the like. Nor has the committee carried on its work like the usual run of such committees by simply holding perfunctory hearings, recording the complaints of individuals or groups and then summarizing these in a report to the legislature together with more or less equally perfunctory recommendations as to what might be done to correct the abuses complained of. On the contrary, the committee has had functions somewhat similar to those of a board of directors; it has employed a staff of expert investigators in accounting, personnel management, and taxation who have worked under its direction, as well as a staff of expert advisers comprising many of the leading men throughout the country in their special lines. The taxation of forest property was one of the special subjects selected for study during the calendar year 1923, the results of which are embodied in the Committee's report to the 1924 session of the legislature. This report will soon be off the press and available for distribution. It deserves wide and careful reading by all State Foresters and others interested in forest taxation. Copies may be obtained from the Committee at the State Capitol, Albany.

The second report, by the economic staff of the National Industrial Conference Board, was undertaken at the request of general business interests in Wisconsin, and is an impartial survey of the burden of taxation as it affects each of the principal economic groups within the State, supplemented, for purposes of comparison, by similar but more general surveys of conditions in neighboring States with the products of which those of Wisconsin industries, including farming, necessarily come into competition. As might be expected from an investigation in the interest of all economic groups, no undue favoritism could be or is shown to the forest group. The report recognizes that any undue favoritism of that sort would react to increase the tax burdens of the farmers and of general business enterprises, which groups, as is shown, are already bearing heavy burdens. On the other hand, the urgent need is recognized for a better adjustment of the tax burden upon the forest owner as a necessary prerequisite to his being able to carry on and produce what obviously is an economic necessity. Copies of this report (price not yet announced) may be had by writing to the Board at 247 Park Avenue, New York City.

Foresight!

Beginning in 1912 the Scranton Gas and Water Company of Pennsylvania planted 80,000 white pine seedlings, which were purchased stock. They continued setting out white pine, bought from private nurseries, until 1918, when over 200,000 trees of six varieties were obtained from the State. Since then practically all their seedlings have been furnished by the State, and to date they have planted a total of 1,367,000 trees. Surely a broad visioned achievement!

"East is East and West is West"

E. E. Carter of the Forest Service has recently called attention to the Census Bureau tables giving the lumber production for 1922 by States. "It is here shown that more lumber was cut in 1922 in North Carolina than in Idaho, and more in Maine than in Montana. New Hampshire led New Mexico, and Vermont and Massachusetts each produced more than Arizona. Connecticut and Maryland precede Colorado and South Dakota. Even Delaware and New Jersey are ahead of Wyoming and Utah."

He adds, "Who said the forests of the Atlantic States amount to nothing? 'Second growth' as a source of lumber is already a real thing. There is a lesson in this for all foresters. Can we learn it - and use it?"

A Bully Loblolly Trip

W. C. Barnes, Washington Office, U. S. Forest Service

The Allegheny Section of the Society of American Foresters surely did themselves proud the way they entertained the Washington Section on the trip to the Eastern Shore of Maryland, July 25-26. We all met at the steamer at Annapolis early Saturday morning at eight sharp, and felt quite set up when the big car with "Commonwealth of Pennsylvania" on its doors rolled onto the boat, with five of Bob Stuart's men in it. Some class!

A caravan of fifteen automobiles rolled on through a lovely region level as a western prairie, with wonderful soft mellow soil covered with well-kept farms, comfortable homes, frequent charming bits of water where the bay drove a long crooked finger up into the land, plenty of farm woodlots, prosperous looking towns, and endless small truck farms kept as clean and weedless as a city flower bed. Almost every town along the road had a history that ran far back into colonial times. At Salisbury and Sharptown we were shown the process of making baskets, boxes, hampers, crates, and barrels for fruit and vegetable shipments. The raw material for this all comes from the farm woods in the immediate vicinity, thus making the region very self-sustaining.

State Forester Besley with Cope and Pfeiffer, his able assistants, were tireless in their efforts to make the trip not only pleasant but profitable. At various points they showed us some fine examples of what can be done with loblolly pine on the eastern shore. I think nearly everyone not in close touch with loblolly rather held that tree in slight esteem. And, honest, what could you expect from a tree cursed with such a moniker? (Must be something awful, Ed.) However, before we got out of the last plantation of this fine timber-producing tree, there wasn't a man in the whole bunch but what was ready to take off his hat and vote that Besley and his men had certainly shown fine judgment when they took hold of this tree as best suited for the eastern shore soil, climate, and economic needs.

We came home with our heads full of new ideas after seeing tracts of loblolly which in from sixty to seventy years had produced over 22,000 feet of fine straight timber to the acre, with thinnings and cuttings during the period that nearly paid the carrying charges. Several farmers with whom we talked said their long neglected loblolly woodlots had saved them from the poorhouse during the last few years. Certainly there was a very general acknowledgment of the value of woodlots to the average general farmer of the eastern shore country. Several said that on a dollar and cents basis their woodlots were paying them a higher rate of interest than their cultivated lands.

It surely was a worthwhile trip for each and everyone of the fifty-one men and one woman in the party. The latter declared she had the time of her life especially when the huckleberry thickets were under close observation.

Jack, the Debt Killer

Jack pine, once considered a "pesky nuisance" in northern Wisconsin, is selling for an average of \$1.50 a cord on the stump, and farmers who have with difficulty weathered the last two lean years are beginning to practice the first elements of forestry in self-defense and yet with profit. In Wisconsin the big pines are gone, but jack pine is still hanging on, despite disastrous fires and local ignorance of practical forestry. Now that the farmers themselves are beginning to see what forested acres can mean in dollars and cents, when other crops fail, the gospel of reforestation, it is felt, will win many converts in this part of the country.

S. O. S. For Dependable Seed

L. N. Watson, Superintendent of the State Forest Nursery at Gerish has experienced a great deal of trouble in securing dependable seed. This coming fall he plans to collect cones of the white and red pine for as much of his seed supply as possible. Any information forwarded to him through the Department at Concord concerning a possible supply of white and Norway pine cones will be greatly appreciated.--N. H. Forestry Dept. (News Letter.)

Forest Planting in the South

Last winter the Great Southern Lumber Company, Bogalusa, La., planted 1,000,000 seedlings of slash and loblolly pines on its denuded lands. It now has growing for planting next winter 4½ million seedlings. At the rate of a thousand trees per acre this should mean 5,500 acres planted in two years. However, during the past three years direct seeding of slash, longleaf, and loblolly pines has been so successful that Mr. J. K. Johnson, Forester for the company, is seriously considering

abandoning planting altogether. The method of sowing in seed spots in furrows (5½ feet apart in furrows spaced 8 feet, or about 1000 to the acre) is the one at present favored above others. Slash pine has given the quickest and highest percentage of germination, and its seedlings are practically immune to damage from the tip moth which badly injures young loblolly pines.—W. R. Mattoon, Extension Forester.

A Rushing Business

During the three days July 29-31, orders were placed with the Department for 652,100 trees for planting next spring. This is the largest number of trees that have been requested in any three days at this season of the year. One application was placed for 300,000 trees and another application for 100,000 trees, and 53 additional applications coming in from all parts of the State totaled 252,100 trees.—Penn. Service Letter.

Preparing for Christmas

The Northeastern Forest Experiment Station, in cooperation with the Forestry Department of the Massachusetts Agricultural College has planted Norway spruce seedlings at Mt. Toby, Mass. in a plantation of two-year-old Scotch pine, in order to test the feasibility of growing trees to supply the great annual Christmas-tree market. The spruce will be removed when it is large enough for a ready sale, and the success of the experiment determined by the effect upon the growth of the other species.

Mapping Out the Route in North Carolina

Extension Forester H. M. Curran of North Carolina has outlined various plans by which the Extension Service of that State can take the fullest advantage of its forestry resources. Ten million acres of forest land now produce \$32,000,000 worth of timber. One-fourth of this area is in good second growth. Low grade material suitable for pulp, fuel, acid, charcoal, creosoting, posts, poles and ties are in excess of local demand. It is estimated that the State can produce from 5 to 10 billion feet of high grade pine, spruce, hemlock, cypress, oak, gum, poplar, ash, hickory, walnut, beech, birch, maple and many minor species.

These plans include: county surveys of timber; the organization of owners into producing units to supply local and State industries with the wood needed; creating new industries for excess material, and organization of industries to use low grade material.

A Call for a State Bureau of Marketing and Utilization

Is it not time to inaugurate and follow out a policy of utilization not only for the State forests but for the State at large? We have many wood-using industries in Pennsylvania and we have forests that can and do supply some of them with their raw materials and finished products. We have bureaus that concern themselves with protection, silviculture, and even recreation. Why not one for carrying out a progressive policy of utilization and marketing? It could keep in close touch with the Forest Products Laboratory at Madison and help spread the results of experiments carried on there. It could study freight rates and advise of the charges to various markets of different products. It could keep in close touch with the industries and their needs. It could keep tab on market prices and conditions in various sections. It could advise the landowners and lumbermen of the best markets for their timber as well as the proper methods of cutting. It could promote closer utilization of forest products, keep in touch with the various trade associations and help in the standardization of log rules, lumber grading and lumber sizes. It could supervise the utilization work on the State forests and promote the secondary uses of the forests. In a short time it could become one of the most popular and valuable branches of the department and do considerable to advance the practice of forestry in the State.--E. B. Miller, Acting Assistant Forester, Gallitzin Forest District of Forests and Waters, Service Better.

Hats Off to the Women!

Two striking examples of practical accomplishments in forestry by women are furnished by recent activities of the State Federations of New York and Connecticut.

The Conservation Department of the New York State Federation of Women's Clubs, under the leadership of its chairman, Mrs. E. C. Whitmyer, has shown such an interest in forestry that Mr. and Mrs. C. J. Reeder of Carthage, N. Y., were inspired to present the Federation with 100 acres of land. This land is the beginning of what is said to be the first "Federation Forest" owned by any group of women's clubs, and is to be added to from time to time.

The Connecticut Federation of Women's Clubs is taking an active part in the movement started by the Connecticut Forestry Association to establish a "People's Forest." Over five thousand dollars has already been donated for the purchase of land, most of which has come from the women's clubs. Mrs. F. W. Gerard, Chairman of Conservation of the Connecticut Federation, has been largely responsible for securing the money - enough to purchase a square mile of land--Lilian T. Conway.

Governor Gifford Pinchot has designated October 24 as fall Arbor and Bird Day, and April 3 and April 24, 1925, as spring Arbor and Bird Days for Pennsylvania.

Opportunity Knocking at Some One's Door

The Massachusetts Forestry Association is looking for a man to do publicity work in showing motion pictures and giving talks before School Children, Women's Clubs, Boards of Trade and other organizations. While not actually engaged in that work the man will solicit members for the association. If the right man can be found for the place, the position will pay between \$4,000 and \$5,000 a year. Preference is indicated for a single man of good presentation whose knowledge should be divided between 70 per cent salesmanship and 30 per cent forestry.

To Wish All Counties Many Happy Returns of This Day

Through the cooperative efforts of the Forestry Commission of the Delaware County Farm Bureau in New York State, County Agent R. Q. Smith, Mr. C. G. DuMond, Mr. Clifford Pettis, Superintendent of New York Forests for over 20 years, and Alexander MacDonald, the New York State Conservation Commissioner, a Forestry Day was planned for August 14 on Mr. DuMond's farm. On that farm there is a reforestation plantation of over 200 acres which is said to be a most interesting and inspiring example of what can be done at practically no expense but with some intelligent effort toward reforestation.

One of those directly interested in this meeting was Congressman Clarke from that District, whose genuine interest in forestry is indicated by the important forestry bill bearing his name as co-author with Senator McNary.

Among the speakers were Mr. Pettis, Congressman Clarke, Associate Forester Sherman of the U. S. Forest Service, Dean Franklin Moon of the School of Forestry at Syracuse, Professor G. H. Collingwood, Extension Forester of Cornell, Ed Thompson, Federal Land Bank, Springfield, Mass., and Mr. DuMond.

It was a great day for forestry in that section. May other counties go and do likewise.

Trying Out the New in New York

A new method of preventing erosion, known as angular submerged tree planting, has been successfully applied by the New York State Forestry Association on a three quarter mile stretch of lake shore at Kinderhook in Columbia County. The work was undertaken for the purpose of saving Camp Hawley, a large Boy Scout camp owned by the Fort Orange Council, Boy Scouts of America. Willow logs, ranging in length from 10 to 15 feet were installed along the water-washed banks. The ends of the logs enter the ground at the water level and extend a couple of feet or more below the surface. The portion of the log lying along the bank from water line to top develops a heavy growth of sprouts and roots, and eventually forms a living wall capable of resisting the wave action from the lake, as well as the natural erosion caused by rain and frost.

Montana's State Forestry Policy

As the owner of 500,000 acres of timberland, which it is endeavoring to operate with the maximum efficiency and benefit to the citizens of the State, Montana has evolved a forest policy, stated by Forester R. P. McLaughlin, as follows:

It is, and should be, the policy of the Montana State Forest Department to adhere closely to the following propositions:

1. To withhold its timber from sale, rather than to force it upon the market.
2. When the sale of its timber is made, to manage the timber cutting and brush disposal in a manner to leave the nucleus of a new crop upon the ground.
3. To reforest such areas of State forests as are accidentally or unwisely denuded of their timber.
4. To encourage reforestation, and to aid in the protection of all timberlands of the State.
5. To preserve the landscape beauties of important recreational points of the State forests.
6. To extend and consolidate the State forests by acquisition and exchanges.

Cooperation Between Grower and Manufacturer

In order to develop a continuous source of raw material in its immediate neighborhood without actually owning the land and doing the work under its own direct control, the New England Box Company operating in Massachusetts and southern New Hampshire has established a forestry extension bureau. This will be at the service of independent timber growers and will mean a coordination of spirit and resource between the pulp manufacturer and the timber grower. --News Letter of the American Paper and Pulp Association.;

Cruising on Demonstration Tours in North Carolina

Plans were recently completed for the first of a series of tours planned by the State Extension forces to demonstrate forest work in Piedmont and Western Carolina. The work included fire protection by State Forester J. S. Holmes and his staff; Research Work of the Appalachian Forest Experiment Station by E. H. Frothingham, Director; Administrative Work of the U. S. Forest Service on Pisgah National Forest by Verne Rhoades, Supervisor; and demonstration work by county agents and Extension Forester H. M. Curran.

The party left Statesville August 19, visited County Agent R.W. Graeber's thinnings in shortleaf pine, viewed the Burke demonstration on hospital farm, and then went on to Asheville to inspect the notable forest plantings which have been carried on for the last twenty or thirty years at the Biltmore estate.

The object of these trips was to give the county agents an opportunity to see general forest conditions in the State and discuss on the ground with experts the large problems facing them in forest cropping on North Carolina farms. The meeting of these men with State and U. S. officials who are leading in forest work in the South will be of benefit to both, will aid in the solution of many forest problems, and will bring good forest practice to the farmers of North Carolina.

State Forest and Game Refuge Purchased

The State Game and Fish Commission of West Virginia has recently purchased the first State forest and game preserve. The area purchased lies in the midst of the Alleghany Mountains of Pocahontas County and contains nearly 11,000 acres. It is well stocked with hardwood and conifer reproduction and abounds in clear streams and magnificent scenery. Game, including deer, wild turkeys, ruffed grouse, squirrels, and quail, are fairly plentiful. This area will be preserved as a game refuge as well as a State forest and thereby

it is hoped to stimulate the increase of game throughout the important game section. The beginning having been made, other purchases will doubtless be made as fast as funds are available.--
A.B.Brooks, Chief Game Protector, West Virginia.

Rattling the Bones in Fire Fighting

Evidence in the field shows that the following errors are still of frequent occurrence:

1. Failure to start for a fire immediately. Man thinks more of comfort than his job - let him choose.
2. Failure to attack at 4 o'clock a. m. Violates first law of fire fighting.
3. Failure to have suitable equipment or foreman. He wasn't prepared.
4. Failure to keep posted in regard to all sides of a fire. Back work instead of head work.
5. Construction of a trail in front of a fire without burning clean from extreme edge of trail. Pins faith in foot of dirt where experienced man would not trust a county road.
6. Construction of a fire line in advance of a fire with no attempt to backfire. A costly monument to misjudgment or inefficiency.
7. Escape of fire after patrol is abandoned. Classed with those who "didn't know it was loaded."
8. Failure to throw dangerous snags. He'd build a 3-foot fence to keep birds out of his garden.
9. In moss laden timber the construction of line in advance of fire without burning out moss before heat of day. It would be cheaper and just as effective to blaze a line of trees and cross his fingers.--Forest Patrolman.

On the Lookout in New Hampshire

The New Hampshire Forestry Department is erecting four new lookout towers, one on Mount Kearsage, one on Mount Osceola, one on Cabot Mountain, and one on Cardigan Mountain.--News Letter, N. H. Forestry Dept.

A Good Idea--Ho!

A new idea is being worked out on the Payette National Forest in Idaho which seems to me to have the merit of educational work and practical fire prevention both.

All automobiles and other vehicles are checked and recorded at the entrance of roads into this Forest. The official in charge secures the name and intended destination of each person and hands him free literature containing information of value to campers, hikers, and tourists generally. This literature also contains fire warning slogans and practical advice. The visitors or travelers are informed incidentally that this procedure is for the purpose of facilitating the apprehension of any person guilty of fire carelessness.

This, in connection with the sight of firewardens mounted on motorcycles upon the highways within this Forest has resulted in a more careful attitude on the part of persons using the Forest in this vicinity and results beneficially not only to the forest initiating the plan but also to the adjoining forest lands. The personality of the officers giving out the information is an important factor.--H. C. Shellworth, South Idaho Timber Protective Association.

Statistics show that an average of 2,292 forest fires occurred annually in Pennsylvania during the last six years.--Penn. Service Letter.

New Weapons for the War on Fire

There has been new meteorological equipment set up at Tupper Lake by Henry A. Miller. This station is established in cooperation with the Northeastern Forest Experiment Station for the purpose of determining the relation between relative humidity and forest fires. There have been four other stations established in the State in addition to the one mentioned - one at Old Forge, one at Schroon River, one at Speculator, and one at Long Lake.--The Observer.

Louisiana Playing the Game

The Department of Conservation of the State of Louisiana has just issued its Sixth Biennial Report for 1922 and 1923. V. H. Sonderegger, Superintendent of the Forestry Division, says:

On January 1st, 1924, Louisiana's idle cut-over lands totaled 13,650,000 acres, of which 75 per cent are not suited for immediate agricultural development, or will not be within the next 50 years. The virgin timberlands on hand amount to 3,600,000 acres, and these lands are being depleted at the rate of 300,000 acres per year. The improved agricultural lands in the State amount to not quite 5,000,000 acres, of which thousands of acres are idle, due to labor shortage, overproduction, boll weevil attacks and other detrimental factors. The average annual collection for the forest products severance tax is \$360,000, of which the Division of Forestry receives \$60,000, the balance going to educational institutions.

The Division of Forestry has purchased 2,200 acres of timbered land cut over 25 years ago as a State forest. This is located in Rapides Parish. It is planned to include the purchase of at least five more State forests of 2,000 to 3,000 acres, each located in different sections of Louisiana, so that forest conditions can be studied.

One of the large lumber companies has set aside 53,000 acres of cut-over lands for reforestation under scientific management.-- "Forest Leaves."

Arkansas "Among Those Present"

A forward step in forestry has been taken by the State of Arkansas through the appointment by Governor McRae of a Forestry Commission, consisting of some 30 prominent citizens, whose duty it will be to study the State's forestry problem this year and recommend a program to the next session of the legislature.

The Louisiana Scrap Between Young Pine and Scrub Oak

Some people burn off cut-over lands in the South to keep down the scrub oaks in the interest of better grazing. What ultimately happens under this practice?

Young pine seedlings are utterly destroyed and the scrub oaks - delayed somewhat perhaps - come steadily on and finally get full possession of most of our Southern cut-over lands. And when they do get possession, as everyone will admit, no grazing crops of any kind grow.

On the other hand, if fire is kept out entirely, pine seedlings, scrub oaks and grass all come on the land in a fair struggle for the mastery. The pines grow up more quickly, overshadow the oaks, smother them out, and the pines and some grass grow on together.

Therefore, we conclude as a pretty safe rule:

FIRE and SCRUB OAKS and NO GRAZING -

NO FIRES and PINES and SOME GRAZING.

Which do we want? --J. K. Johnson, Pres., La. Forestry Ass'n.

Planting Order

Grant Hoover of Williamsport, one of the foremost forest conservationists in northern Pennsylvania, has placed an order with the Department of Forests and Waters for 100,000 forest trees for planting next spring. This order will make 263,000 set out and is more than half of the 500,000 which Mr. Hoover is expecting to plant.

New Hampshire Fire Report

There have been 107 fires (outside of R. R. fires) reported by the Wardens and Deputies in the South District during the first six months of 1924. These burned over 1145 acres, or an average of 10.7 acres. The largest fires up to date have been two of 125 acres each.--N.H. News Letter.

Vacation Allurements. Let's Go.

New York State's Forest Preserve comprises 2,000,000 acres and is larger than any of the great national parks except the Yellowstone. While the development of the forest preserve for recreational purposes was begun only a few years ago, there are already about 600 miles of improved highways and 300 miles of trails, 150 of which are marked. In the Adirondacks there are about 125 public camp sites with 185 stone fireplaces and 39 open Adirondack lean-tos. At these camp sites space is furnished for parking automobiles, open fireplaces are constructed to furnish safe and convenient places for cooking, and there is a supply of pure water. Some of the camp sites cover several acres and will accommodate the equivalent of a fair-sized village.--The Observer.

Resourcefully Hidden Resources

While excavating for a trail in San Antonio Canyon, California, Ranger Shay unearthed a cache of some 260 bottles of assorted "booze" of ancient vintage, which he immediately proceeded to destroy in approved "prohibition agent" style. As proof of discovery and destruction, Supervisor Charlton has a photograph which he exhibits with considerable show of emotion.--L.A.B.

Sweet Are the Uses of the Forest

Few individuals appreciate the fact that the forest, besides producing wood, provides numerous minor products which benefit mankind, among which are naval stores, nuts, rubber, tannins, medicines, and maple syrup and maple sugar.

Of these minor forest products, maple syrup and sugar are of considerable importance in Pennsylvania today. During the year 1923, 203,500 gallons of syrup and 339,700 pounds of sugar, with a combined value of \$512,400, were produced.--Penn. Service Letter.

Getting the Facts

Nothing in recent months has been so encouraging to the Secretary-Forester as the response of the membership to the questionnaire enclosed with Forest Service Bulletin 1417, "Idle Lands and Costly Timber."

The object in presenting a list of questions was to determine how much forestry was being practiced by the individual units in the association movement in New York, as distinct from the work which the association is trying to accomplish as a whole. We want the information not only for ourselves, but for the various departments and organizations, State, Federal, and private, that are making use of our information service, and we shall be able to teach a far-reaching lesson in conservation when the facts and figures submitted have been assembled and classified. Results of the forestry questionnaire will be published in the SEED TREE.

The following data will be available; total area reforested; total area on which forestry principles are being applied; forest land area efficiently protected against fire; area partially protected; private work on gypsy moth and blister rust eradication; miscellaneous forestry work.--The Seed Tree.

Sowing Good Information Seed

The New York State Forestry Association has issued in pamphlet form a full text of the Clarke-McNary Forestry Law passed in the closing hours of the last session of Congress. The pamphlet also contains comments on the new legislation by prominent foresters.

Bird Sanctuaries on Virginia Forests

A number of bird sanctuaries may be established on the Shenandoah and Natural Bridge National Forests as a result of joint efforts now under way between the Department of Game and Inland Fisheries of the State of Virginia and Forest Supervisors Marsh and Sears of the Forest Service. The Service and the State authorities have agreed upon general principles in connection with this project and the immediate next step will be to select the best and most available areas which will insure the objects sought.

The Largest Tree Planters

That the largest individual planters of forest trees in this country live in New York State is claimed by the New York State Forestry Association, following the return of questionnaires sent out to members of the association last month. T. C. Luther of Saratoga holds the record, having set out in recent years more than 1,800,000 trees. The complete returns from the forestry questionnaires show that more than five hundred members of the Forestry Association have either reforested idle acres or applied the principles of forestry to natural grown stands.

Open Season. Next!

District Forester Walter Leach of Mount Union has found what he believes to be the largest Swamp White Oak in Pennsylvania. It stands in an open field near Waterfall in Clay township, Huntingdon County, not far from the Fulton county line. At $4\frac{1}{2}$ ' above the ground it measures 16'5" in circumference. The height of this mighty monarch is estimated at 75 feet and it has a branch spread of 78 feet. -- Service Letter.

Destroying the Blister Rust Carriers

State Leader L. E. Newman reports that White Pine Blister Rust Control work has been progressing very favorably during the past few weeks. The destruction of currant and gooseberry bushes has been completed for this year in 31 towns and crews are employed in 36 others. Nearly 1,000,000 bushes have been located and destroyed. -- N. H. News Letter.

Allowing the Fishes to Multiply and Replenish

The closing of some 200 small streams in the mountains of West Virginia, about three years ago, and prohibiting of all fishing in the same, has already produced flattering results. Brook trout have increased and spread out into the larger waters where fishing is allowed, and fishermen over the State are enthusiastic over future prospects. This season's catch was better than for years past.--A.B.Brooks.

Pennsylvania Forest Officers on the Job

Forest officers of the Michaux State Forest apprehended R. M. and E. H. Slough of Ohio while removing six evergreen trees on State forest. Upon paying \$2 for each of the trees in lieu of prosecution for trespass, they were permitted to continue on their journey. They gave up the stolen trees which were replanted on State forest. Forest officers are determined to break up the bad practice of tree stealing.--Penn. Service Letter.

Increased Planting in Pennsylvania

Approximately 9,500,000 trees were distributed from the Mont Alto and Clearfield State Nurseries in Pennsylvania this season, the largest number in a single year, twice as many as in 1923 and three times the 1922 output. Ten thousand acres were reforested this spring. The trees are white, pitch, red, Scotch, bank and shortleaf pine, Japanese larch, Norway and white spruce, black walnut and white ash.--American Nurseryman.

Thousands of Feet in These Reels

The Western Electric Company of Pittsburgh has announced that approximately 4 million board feet of lumber were cut and worked up during the last six months in the manufacturing of cable reels. Nearly 50,000 reels, 60-74 inches in diameter, and more than a million lags were produced. This would be enough lumber to build approximately 400 clapboard five-room bungalows.--Penn. Service Letter.

EDUCATION AND EXTENSION

Forestry Education Beyond the Seas

Creation of British Imperial Forestry Institute

Mowatt M. Mitchell, American Trade Commissioner

During the present year Oxford will open to students a line of forestry education under the auspices of a University Department to be known as The Imperial Forestry Institute. This Department will be an integral part of the University proper, under the control of a board of governors representing the University and the Government Departments concerned, under the chairmanship of Lord Clinton, one of the Forestry Commissioners.

The educational work of the Institute will comprise:

1. Post-graduate training of probationers for the forest services and of other qualified persons;
2. Training of research officers in special subjects; and
3. Provision of courses for selected officers already serving.

It is intended that the Institute should maintain close touch with and be of assistance to the various forestry training centers throughout the Empire.

If in any particular case it cannot undertake to give direct instruction, the Institute may arrange that this should be given at some other place. It is proposed, for instance, that close touch should be maintained with the Royal Botanic Gardens, Kew, whose unrivalled resources should be of great assistance to those students who may wish to study systematic botany and economic products. Again, forest engineering is a subject which cannot be dealt with comprehensively in Great Britain, owing to the absence of logging operations on a large scale; arrangements will therefore be made as far as possible to study it practically in the forest regions of the continent, or in certain cases in Canada. Similarly, the study of tropical silviculture from the practical point of view is impossible outside the tropics, and hence the institute will maintain close touch with other institutions where this subject can be efficiently dealt with, such as the Forest Research Institute and College, Dehra Dun, in order that the best possible arrangements may be made in the interests of students who wish to make a practical study of tropical silviculture.

Although the institute is intended primarily to serve the needs of forestry in the British Empire, it will be open to qualified students of any nationality provided that there is sufficient accommodation. Students admitted to the institute may, in fact, be included under any of the following categories:

- (a) Those possessing a degree in forestry, or a diploma or equivalent certificate of having satisfactorily completed an approved course of training in forestry, who have been selected as probationers for the higher branch of some forest service.
- (b) Graduates with honors in science, who desire to become specialists in some branch of work connected with forestry.
- (c) Forest officers deputed to attend courses with the view of bringing their professional knowledge up to date.
- (d) Students of approved qualifications not included in the first three categories, who are admitted on the recommendation of overseas governments.
- (e) Students with a university training in forestry who may wish to attend the institute on their own account and at their own expense.

The course of study at the institute will normally extend over one academic year, beginning October, and will be made sufficiently elastic to serve the needs of individual students. The subjects dealt with will cover the whole range of forestry and will include silviculture (European and tropical), forest management (including mensuration, valuation, and working plans), forest botany (including physiology and anatomy of trees, mycology and pathology, ecology, and systematic botany), forest zoology (including entomology), forest utilization (including the structure, properties, and uses of wood), soils, climatology, forest economics and policy, forest law, and forest engineering, including surveying.

Forestry Extension Division Established at Wisconsin

The regents of the University of Wisconsin at their last meeting made possible the establishment of a Forestry Extension Division in the College of Agriculture. It is the expectation that this work will involve not only farm woodlot management, but the handling of wooded lands in Wisconsin with a view of increasing the output of forest products. This work will be carried out in conjunction with the State Conservation Commission.--Dean Russell.

Cost of Kiln Drying vs. Air Seasoning

J. D. Studley, formerly of the Forest Products Laboratory at Madison, who is taking his research work in timber physics at the University of Washington, has just completed for his thesis a report entitled "The Cost of Kiln Drying Compared to the Cost of Air Seasoning Heavy Sizes of Green Swamp Oak." His data collected while at the Madison Laboratory show conclusively that it is more economical to air season than to kiln dry heavy sizes of green swamp oak.--C.W.Z.

FOREST SERVICE NOTES

1924 Fire Situation Along the Western Coast

Apparently the most critical situation from a fire protection standpoint that has faced the Forest Service since the great disaster of 1910 has been presented by the serious drouth conditions in California this season. More than 33,000 acres of land within the National Forests of that State have been swept by fires this year. District Forester Redington at San Francisco considered it advisable to take the problem up with the local Commander of the Presidio and make advance arrangements for the use of troops for patrol purposes, particularly in the areas which it has been found necessary to close temporarily to the public. No more camping permits will be issued on seven forests and on dangerous watersheds on two others until the fire season is over.

The critical situation has called for the cooperation of all citizens of the Pacific Coast States and the coordination of all agencies to meet the forest fire emergency. The call to arms met with an immediate response which was deeply appreciated.

One outstanding feature of cooperation was the splendid work of Mr. H. J. Gallagher, Vice President of the Shell Company of California, 200 Bush Street, San Francisco. No effort or expense was spared by his company in assisting Federal and State agencies in a widespread fire prevention campaign along the Pacific Coast. Among other helpful things, this company issued 325,000 colored automobile windshield stickers; 225,000 colored poster stamps; 250,000 colored fire leaflets; 6,000 large colored fire posters showing a vivid fire scene and carrying the slogan, "Save the National Forests - put out your camp fire." A letter calling attention to the fire hazard was placed in the hands of all service station employees and brought to the notice of each motorist who stopped for gasoline and oil. For one week a fire pageant was staged at the Granada Theater in San Francisco, preceding the regular

screening of motion pictures, and the entire cost paid by the Shell Company. It is estimated that 61,000 people attend this theater each week, and that many or more saw the three scenes ..., a camping party on a vacation in the forest, the campers leaving without extinguishing their camp fire, and the whole woods destroyed by the raging flames from their neglected camp fire.

Another notable instance of assistance and cooperation was the voting of \$20,000 by the Los Angeles Board of Supervisors to be used on trails, firebreaks, public camps, etc., toward the protection of the Angeles Forest. Each year for fifteen years or more a sum of money has been voted for additional protection of this Forest.

Another instance worth noting was the cooperation of Norman H. Sloane, Manager of California Development Association, who turned over the entire organization to assist the National and State forces in fire suppression and fire fighting activities. A State Citizens' Committee was also organized for the purpose of giving close cooperation and assistance to the U. S. Forest Service and the State Board of Forestry through the chambers of commerce.

In Oregon and Washington, where an intensive fire prevention publicity campaign was conducted, arrangements were made with the Portland "Morning Oregonian" to broadcast a forest protection message every evening from KGW, the Oregonian station, throughout the fire season.

Foster and Kleiser, the dominant billboard company of the Pacific Coast, contributed twenty large poster panels 11x25' to this campaign.

Closed for the Season

Owing to the serious fire conditions along the Pacific Coast, it was deemed necessary to close the entire Deschutes National Forest to camping or smoking, and no permits will be issued for this area until the fire season is over. In addition, the east half of the Columbia National Forest, all National Forest land upon the watersheds of Cable Creek, Winona Creek, Big Creek, Meadow Creek, Fly Creek, Chief Creek, Frazier Creek, a portion of Hiaway Creek, and the Mill Creek watershed have been closed.

Weather Bureau and Forest Service Cooperating

A close cooperation between the Weather Bureau and the Forest Service is being worked out, by which weather predictions as far in advance as possible are furnished direct to Forest Supervisors on the National Forests. For Montana, Wyoming, and Idaho, forecasts are sent out daily from Chicago to Spokane, Helena, and Boise, where they are relayed to the nearest group of Forest Supervisors. In Oregon and Washington, the reports are received direct from the Weather Bureau at Portland. In California, predictions are sent out to the whole State from the San Francisco office.

Snowshoe Rabbit a Menace to Young Forests in Minnesota

According to reports from the Lake States Forest Experiment Station at St. Paul, the snowshoe rabbit has become a serious pest to the young planted trees in the forest plantations of Northern Minnesota. The rabbits are abundant there this year and the damage they have done is very extensive.

Of the three principal species, white pine, Norway pine, and white spruce, the damage is heaviest in the white pine and least in the spruce. All three, however, are so heavily damaged as to cause the death of those trees whose tips can be reached above the surface of the snow by the rabbits. As high as 75 per cent of the trees in one plantation were eaten off.

At present this rabbit is protected by State law nine months in the year. It is recommended that the open hunting season for this pest be extended.

Protect Redwood's Associates

"To secure a fair reforestation of our redwood lands in California, more emphasis needs to be placed on the protection of the associated species, particularly Douglas fir, than of redwood itself," recently stated Mr. S. B. Show, who heads the California research organization of the U. S. Forest Service. Redwood sprouts from the stump and will continue to do so almost indefinitely, despite the treatment the cut-over land receives; but the associated species that are necessary to bring the land up to the density of growth demanded for profitable logging operations depend upon seed trees for reproduction.

Planting Needs in District 2

An extensive planting reconnaissance in District 2 shows a total of 1,211,538 acres of land that is considered for immediate planting; 196,000 acres of this total is represented by the treeless Nebraska Forest, the remainder consists for the most part of burns either completely barren or with a light cover of different species.

Indian Forester Visits United States

Mr. S. N. Kaul, a Hindu forester, was a recent visitor to District 4. Mr. Kaul is traveling in the United States to broaden his outlook in forestry matters and is visiting a number of the western Districts. Although interested in all phases of forestry, he was particularly impressed with the grazing administration as exemplified in the Intermountain District and discussed range management, grazing studies, and administration at considerable length. He states that in India the livestock industry upon the forests is entirely unorganized, each man doing as he pleases and many of the evils suffered in this country previous to the creation of the National Forests are becoming more and more noticeable in that land.

Cattle Costs on Western Forests

It cost ranchmen on the average 66 cents a head per month, or \$3.62 a head for the season, to run cattle on forest ranges in the Western States in 1923, according to figures recently compiled by the Forest Service. This cost of \$3.62 per head in 1923 compares with a cost of \$2.04 per head for cattle run upon the Colorado National Forest ranges in the year 1922.

The 1923 figures are based on a study of costs on 1,193 ranches on 15 National Forest ranges in Colorado, 8 forest ranges in Utah, 4 forest ranges in Wyoming, 4 forest ranges in Idaho, and 1 range in Montana. The Colorado cost figures for the year 1922 cover 454 ranches.

Ancient History

Charles W. Boyce, who recently returned from a trip to the Northeast to secure information on lumber prices and transportation rates, found in the files of the city of Boston a continuous series of retail lumber prices from 1761 to the present. Regarding one item found, Boyce says, "It is interesting to note that the cost of keeping the town punch bowl filled was greater than the cost of building done by the city in ye olden days."

A Single Set of Volume Tables

Director Dana reports work in progress at the Northeastern Forest Experiment Station, Amherst, Mass., which indicates it may be possible to use a single set of tables to measure the contents of standing timber of most softwood species without regard to location or size with less chance of error than with existing tables for individual species in specific regions.

For a number of years a system which recognizes this factor of form has been used with satisfaction quite generally in Sweden. The work at the Northeastern Forest Experiment Station follows the general principles of the Swedish system, but has developed along original lines in many respects. It is a continuation of studies originated at the University of Idaho by C. Edward Behre, now a member of the station staff.

Little Bigtrees

About 1912 various small plantations of bigtree were set out in different parts of California. Examinations made of these about 10 years later are interesting in showing the great adaptability of these species whose natural range is so restricted.

Show gives a detailed report of some of these as follows: 65 per cent of them alive; tallest about 8' high, outstripping yellow and sugar pine in height growth; of those set out on a burn and forced to compete with established brush cover, best trees were from 4-8' high; others only 1½-2' high.

A Forest Training Camp

A Forest Training Camp will be held at Fort Valley, Arizona, beginning September 1. It is expected that 30 Forest Rangers from District 3 will attend the camp for training and instruction.

A similar camp for District 2 was held at Woodland Park, Colorado, in May for ten newly appointed rangers, and a second camp in June for later appointees.

"Viewing with Alarm"

Considerable alarm has been felt for several years because of the presence of the Yellow Pine blister rust (*Peridermium Harknessii*) in the Halsey plantations on the Nebraska Forest. Recently this same

infection was discovered in a Scotch pine plantation about fifty miles north of Halsey which was established in 1893. It is, of course, unknown whether the stock was infected when sent in or whether the spores of the blister rust were carried by the wind from the native yellow pine along the Niobrara River, about 20 miles north. At any rate, even in long stretches of treeless country, it is seemingly impossible to isolate a plantation of forest trees without in time getting in some injurious disease or insect.

'Twould Make a Big Picture Book

The report for the fiscal year 1924 by the Librarian of the Service photograph collection shows that during the past year 1,467 photographs were added to this collection. The total of photo prints now filed in Washington is 50,328.

Saving Paper Before It Is Made

At present thousands of tons of pulp are lost annually through decay, much of which is entirely preventable through proper care and spraying with various chemicals. Sodium fluoride has been found successful in preventing fungous attacks, and now a cymene (crude spruce turpentine) treatment developed recently at the Forest Products Laboratory and combined with sodium fluoride has been found to be of even greater value. An advantage of the cymene treatment is that this chemical is a by-product of the sulphite pulping process.

A Spray Pump for Fire Control

District Ranger J. E. Potts of the Pisgah National Forest has been trying out a spray pump in fire control. With this pump there is a galvanized knapsack tank about 6" wide, 20" across and 20" deep, holding about four gallons. Easily adjusted nozzles give different sized sprays. Reports of this pump in actual use on fires of various sizes are very enthusiastic. It was bought at Asheville, North Carolina, at the retail price of \$8.50 for the complete outfit. It is claimed that this device is far superior to any of the compressed air sprayers of similar capacity.

Sales in District 6

At the present time a total of nearly one-half billion feet of timber is being advertised in three large sales in District 6.

Increased Funds for Research

In June the appropriations of Congress provided a \$50,000 increase in the sums available for silvical investigations. This amount specifically provides for the establishment of forest research work in the Pacific Northwest on a much more adequate scale than heretofore, and also for the material expansion of the work at the Southern Forest Experiment Station.

Manuscripts

A check made of the Forest Experiment Station manuscripts handled during the past year shows that 109 articles were submitted for publication, 77 of them being published. These included 5 bulletins, 3 circulars, 13 articles in the scientific press, 15 in forestry journals, 2 in State publications, 8 in forest school papers, 35 in trade journals, and 6 in agricultural and engineering papers.

Change in Name

The name of the Fort Valley Forest Experiment Station has been changed to that of the Southwestern Forest Experiment Station. That station was the first of the Forest Experiment Stations to be established in 1907.

Chestnut Blight Found in Georgia

Two new spot infections of chestnut blight, the scourge that has been attacking chestnut trees wholesale throughout the Eastern forests, were recently located in Georgia by E. F. McCarthy of the Appalachian Forest Experiment Station. Both are located near Blairsville, Georgia, one 10 miles south in Union County, the other in Towns County north of Brasstown Bald Mountain and 5 miles from Young Harris, Georgia. The region is one with a high percentage of chestnut trees, especially on the upper mountain slopes. It is the southernmost point at which blight has so far been reported, although in both North Carolina and Tennessee it has been extending in this direction and threatening northern Georgia.

MISCELLANEOUS ITEMS

A Welcome News Item

"Although the Clarke-McNary forestry bill, passed and approved during the closing days of the last session of Congress, does not appropriate a single dollar outright, it represents the greatest forward step in the forest policy of the United States since the Weeks law of 1911," declares William B. Greeley, chief of the Forest Service.

"The new law's most important feature," states Col. Greeley, "is its recognition of the need for forestry in everyday land use and its aid to private timber growing. In past legislation public forest ownership has been largely emphasized, but in the Clarke-McNary bill the practice of forestry by the private landowner has been given special consideration, along with the enlargement of publicly-owned forests."--Official Record.

Circular on the Weeks Law

The operation of the Weeks Law up to June 30, 1924, has resulted in the acquisition of 2,122,970 acres in areas which have been proclaimed as National Forests by the President. The Forest Service of the Department of Agriculture has just published Department Circular 313, Purchase of Land for National Forests under the Act of March 1, 1911, the Weeks Law, which discusses the purpose and benefits of that law, the use of the lands thus acquired, and gives detailed instructions and information regarding the classes of land desired, the location of the approved purchase units, and the procedure involved in making the purchases.

Forester Wanted

State Forester F. W. Besley, 815 Calvert Building, Baltimore, Maryland, has written the Forest Service as follows:

"A position is to be filled in the Maryland Forestry Department October 1, paying from \$2,000 to \$2,500. Applicant must be a technically-trained forester with some experience in fire protection work under eastern conditions. He must be capable of directing a State-wide protection system."

At the conference some time ago between representatives of the Bureau of Entomology, the Forest Service, and some additional institutions, the need for greater training in forest entomology was recognized and recommendations made that a high standard of scholastic training and a thorough knowledge of basic sciences be required of men undertaking investigative work.

A Forestry Study Beyond the Three-Mile Limit

A commission to study the methods used by the French and Spanish turpentine operators in growing and managing the maritime pine which constitutes their source of rosin and turpentine, and the processes of distillation, manufacture, and distribution of the products of these orchards has just been appointed by Secretary Wallace of the Department of Agriculture. The system of forest management and methods of harvesting the gum that is used in those countries is believed by many authorities to possess certain advantages over the system followed in this country.

The membership includes J. G. Pace of Pensacola, Fla., Chairman; Alex. K. Sessoms, president, Sessoms Land & Security Co., Cogdell, Ga.; Dr. Elbert P. Rose, turpentine operator, Valdosta, Ga.; Otto H. L. Wernick, Pensacola Tar & Turpentine Co., Cull Point, Fla.; A. S. Carr, turpentine operator, Bainbridge, Ga.; W. L. E. Barnett, president Florida Forestry Association, Pensacola, Fla.; W. L. Fender, turpentine operator, Valdosta, Ga.; S. A. Alford, turpentine operator, Chipley, Fla.; and Dr. Austin Cary, logging engineer, Forest Service.

The Naval Stores Commission will submit to the department a full report of the findings upon its return from Europe.--The Official Record.

Naval Stores Interests Organize

About fifty producers of and dealers in naval stores in Georgia, Florida, Alabama, and Louisiana have voted unanimously to proceed with permanent organization of the Rosin and Turpentine Exchange, a corporation designed to act as a buying and selling agency of turpentine and rosins, with a capital stock of \$2,000,000. Offices will be opened at once in the Consolidated Building, Jacksonville, Fla., with W. E. McArthur, Jacksonville, temporary treasurer.--American Lumberman.

Sweet Sixteen Next Time

The Fremont Forest Experiment Station at Colorado Springs, Colorado, recently celebrated its fifteenth birthday.

Planting for Pulp

The New York and Pennsylvania Company has a pulp mill located at Johnsonburg, Elk County, Penn., which has been in operation for a period of about 30 years. In order to insure a future pulpwood supply this company has acquired an area of 80,000 acres of forest land in the counties of Elk, Warren, McKean, Tioga, Cameron, Clinton, and Centre.

It has only been within the past few years that a technically trained Forester has been employed. The first large planting was made in 1923 when 400,000 seedlings and cuttings were set out, and this year's planting was equally large. The species which they are planting include: Carolina poplar, Norway poplar, large-toothed Aspen, and Norway spruce. In addition to poplar and spruce the other species of wood used by this company for making pulp are included in the following classification, which is the standard they require for all wood that they purchase:

- Class 1 - Spruce and Balsam Fir sawed in sticks 48" long
- Class 2 - Jackpine, Yellowpine, Old-Field pine sawed in sticks 60" long
- Class 3 - Poplar, Bass, Linn, Cucumber, Quaking Asp sawed in sticks 60", 52", and 48" long.--District Forester Charles E. Baer, Penn., in "Forest Leaves."

Converting Shavings into Pulp

A process for converting shavings and other similar "cull" material of the ordinary pulp mill into a satisfactory pulp, and avoiding all danger of overcooking smaller pieces while larger pieces remain uncooked, has been worked out recently in the chemical laboratory of the University of Oregon at Eugene, by Dr. Alfred Tingle, according to the AMERICAN LUMBERMAN.

Indicating a Possible Exhaustion of Ink Wells

American paper requirements have nearly quadrupled since 1899 and now exceed 8,000,000 tons a year, according to a report on the pulpwood paper and pulp situation just compiled by the Forest Service. The per capita consumption of paper in the United States is double that of any other country, and the entire consumption of over 8,000,000 tons per year is greater than that of all other countries in the world combined.

A Coniferous Melting Pot

The timber survey crew on the east side of the Mount Hood National Forest is working in a sort of natural arborium, there is such a variety of tree species. Close to their last camp were twelve varieties of conifers - white, yellow and lodgepole pine, Douglas, white, silver and noble fir, larch, western and mountain hemlock, western red cedar, and Engelmann spruce. Near-by are three more - yew, dwarf juniper, and alpine fir. Can you beat it?--T.T.M.

Apropos This Summer's Western Drought

An optimist touring through Colorado met a sad-looking farmer.

"Why so blue?" said the optimist.

"Blue? I should say I am. The whole country is going to 'shucks.' Had no rain for months, mortgage is due, can't pay the interest, crops burning up, and the cattle are dying of thirst."

"Why, my good man," said the optimist, "look back of you, gaze to the East; see that beautiful big bank of clouds coming your way? You're going to have a good old-fashioned rainstorm."

The farmer looked around and said:

"Rain, hell, them's just the empties coming back from Ohio."

American Packing Sells the Goods

The attention given to packing methods in the United States is recognized by an English journal as follows: "America, of course, is a long way ahead of us in the matter of scientific packing.... The experts in that country have realized the important bearing which packing has for both manufacturer and consumer, and they have raised the various processes to a fine art."

Troubles Never Come Singly

According to Mr. Lenthall Wyman of the Southern Forest Experiment Station and formerly of the Bureau of Entomology, epidemics of bark beetle attacks in southern yellow pine forests are known to follow on many occasions periods of unusually dry weather.

A Gnawing Annoyance

Dr. Walter P. Taylor of the United States Biological Survey is conducting a study of rodent life, particularly porcupines, at the Southwestern Forest Experiment Station. An area of about half an acre of seedlings, saplings, and half-grown trees has been enclosed in such a manner as to keep several porcupines and squirrels inside in an effort to determine whether porcupines or squirrels are primarily responsible for the girdling of young trees. One porcupine under observation gnawed off 300 square inches of bark in 6 days, killing 39 seedling trees and injuring 32 others.

Who Says Arizona Can't Grow Timber?

One measured acre on the Flagstaff Lumber Company sale in Arizona cut 44,060 feet of western yellow pine and 430 feet of black jack, and a calipered stand of 2,050 feet of black jack was left. This single acre supported a virgin stand of 46,540 feet. There were also 520 seedlings from six inches to three feet in height.

Another Lookout

A Federal quarantine against the importation of Christmas trees and greens from certain parts of the Province of Quebec was put into effect July 1 by the Federal Horticultural Board. The necessity for the quarantine is the presence of the gypsy moth, a destructive insect pest in northern Vermont near the Canadian border, and the fact that it may shortly be expected to invade the Dominion if it has not already done so, and be spread to other parts of the United States.

The Small Mill and Good Lumber

There is a recent revival of discussion in the lumber papers of the quality of the lumber product of the small sawmill as compared with that of the larger mill. It is held that as a rule the small sawmill man must take \$3 to \$4 less for his lumber than the big mills get, largely because he fails to produce as good quality of lumber.

So far as manufacturing itself is concerned, there are really just two broad factors. One is machinery and the other the workers in charge of it. If the machines are fitted up right and the workers are skillful, the quality of their product should be above criticism, regardless of the size of the mill. If, as is claimed, lumber from the small mill sells on an average \$3 or \$4 a thousand below that from the larger mills, then in a mill cutting 10,000 feet a day the value of properly manufactured lumber would be increased \$30 to \$40 a day if the quality of the work were raised up to that of the standard of the big mills.

There are no insurmountable obstacles in the way of the small sawmill producing lumber on a par with the larger mills so far as the work of manufacturing and caring for the lumber is concerned.--American Forester.

Another League

In Douglas, Arizona, business men have formed a league for the protection of the Coronado National Forest and have pledged themselves in case of a fire emergency to leave for the fire at once equipped with fire fighting tools and provisions.

Prevention Better than Cure

The Southern Pacific Railroad, which is building a new line through the Cascade and Deschutes National Forest, is being required to employ a firewarden in each camp and one chief firewarden who shall have no other duties than fire prevention and suppression and the supervision of brush and debris burning. In addition, a portable gas fire engine with 1200' of hose and competent operator is required in every camp which is clearing right of way. Under these requirements there will be one chief firewarden, 7 to 10 camp firewardens, and 9 gas fire engines."

An Interbureau Committee

An important phase of the economic studies of the United States Department of Agriculture is that dealing with policies that will tend to bring about a proper correlation of our land resources and our economic needs. Such studies extend into the field of most of the bureaus of the department -- the Bureau of Agricultural Economics, Plant Industry, Animal Industry, Public Roads, Soils, the Biological Survey, and the Forest Service. The importance of this work has been recognized in the appointment by the Secretary of an interbureau committee on land utilization, and the assignment of that subject for one of the leading articles of the 1923 Yearbook that has just been published.--The Official Record.

New Wild-Life Refuge

About 200,000 acres of swamp and lowlands along the Mississippi River between Rock Island, Ill., and Wabasha, Minn., are to be acquired and set aside as a wild-life refuge under the provisions of the upper Mississippi River wild-life and fish refuge bill, which recently became a law. The act carried no appropriation, however, for the acquisition of these lands, merely authorizing funds to be appropriated for the purpose.--The Official Record.

A Good Aim

(The following is a letter from a high school boy in New York State to the District Forester at Missoula, Montana.)

"My dear forestry friend:

"I am a student of Junior High School and I am aiming to be a forester because I love nature's outdoors. Oh! How I like to be out in the woods these swell forests. I would like you to write me, how many forest fires did you have? I read sometimes about forest fires in Idaho, Oregon. How are you and how are you getting along? I will be very thankful if you will send me some information regarding to Forestry.

"I remain your forest friend,"

Discovering an Early Trail Blaze

Ranger Atcheson of the Mono National Forest in District 5 has a section of a pine tree on which is carved in large letters and figures "Webster 1861." The initials were covered by new growth before the tree died.

Big Business

Basing the estimate on what appear to be very conservative figures - that is, 5,000,000 motor campers on the trail but fifteen days each - the asset of straight motor camping to the communities selling themselves to the tourists towers up to the \$400,000,000 mark annually. --From "Autocamping-The Fastest Growing Sport" by Frank E. Brimmer in The Outlook.

Revised Check List

The revision of the check list of Forest Trees of the United States which the Committee has been working on for the last two or three years, is now nearing completion and it is expected that it will go to the printer in the early winter. Some of the outstanding difficulties met with have been the deciding upon the most appropriate common names for forest trees and the starrng of the important ones, in view of wide-spread differences of opinion on these questions.

Sun-Proof Ink

For a long time Foresters have been hoping and praying for a sun-proof ink on their posters. This matter is now under investigation by a chemist working in connection with the Government Printing Office who is very hopeful of securing a colored ink that will withstand the weather better than any heretofore used.

Starting Young and Right

During the week of August 2-9, 200 Boy Scouts attending camps in Pennsylvania were shown moving pictures dealing with forestry work and each afternoon were divided into groups of 40 each and taken on hikes through the woods to learn the common trees and to receive practical instruction in forest conservation. This constitutes a recognized feature of cooperation for the Department of Forests and Waters.

PERSONALS

H. H. Tryon, formerly with the Lumberman's Bureau of Washington, D. C., and with James W. Sewall, private timber engineer, has recently accepted an appointment as Extension Specialist in Forestry with the Clemson Agricultural College of South Carolina. Mr. Tryon has had a wide experience since studying at the Harvard Forest School, in both northern and southern woods work. The State College of Agriculture, Athens, Georgia, has appointed Prof. Du Pre Barrett to a similar position, effective July 1. Professor Barrett is a graduate of the Georgia School of Forestry, where he has been teaching during the past three years. The importance of these appointments will be seen when it is realized that neither State has a Forestry Department.

- - - - -

C. F. Fueschel of the class of 1924, Pennsylvania State Forest School, has been employed as an agent of the State Forest Commission of Alabama and has been assigned to the work of assisting farmers and other owners of small forest areas in connection with handling and developing their woodland holdings.

- - - - -

G. M. Conzet, who has been Acting State Forester since the resignation of Mr. Cox last winter, was recently elected State Forester of Minnesota for a term of five years.

- - - - -

Col. W. B. Greeley, Forester, expected to return to Washington from his western trip about the middle of August, but on account of the serious fire situation in California he decided to remain west another month.

This is the worst fire season in California experienced since 1910. Even the famous old giant Sequoias were threatened.

- - - - -

William T. Cox, former State Forester of Minnesota, has opened an office as Consulting Forester at 385 Columbus Avenue, St. Paul, Minnesota.

- - - - -

Announcement has just been made by the United States Department of Agriculture of several new appointments to field positions in the Research Branch of the Forest Service. These are R. E. McArdle of Norfolk, Virginia, a former employee of the J. L. Roper Lumber Company of Norfolk, to the new Pacific Northwest Forest Experiment Station; George B. Shivery of Pennsylvania to the Southern Forest Experiment Station at New Orleans, La.; he is a graduate of Pennsylvania State University and of the Yale Forestry School, and comes to the Forest Service from the Bureau of Soils, Department of Agriculture; E. E. Probstfield of Minnesota to the Cloquet (Minn.) Forest Experiment Station, which cooperates closely with the Lake States Forest Experiment Station at St. Paul; he also is a graduate of the Yale Forestry School, which he attended after receiving a degree from the University of Minnesota; and Lester H. Reineke of New York to the Appalachian Forest Experiment Station, Asheville, N. C.; he has worked in the Appalachian region, where he had field experience following his graduation from Cornell University.

- - - - -

Dr. J. V. Hofmann having resigned from the Forest Service to enter private work, Thornton T. Munger of the District Office of Portland, Oregon, has been appointed Director of the Pacific Northwest Forest Experiment Station, the new name of the Station formerly known as the Wind River Forest Experiment Station. The facilities for experimental work in the Northwest will be greatly enlarged as a result of recent Congressional action.

- - - - -

Donald Bruce, formerly a Supervisor in District 1 and later in charge of logging engineering and mensuration at the University of California, came to Washington on June 16 and, with R. M. Brown, began the rechecking of the Southern pine growth data.

- - - - -

W. A. Graham, Commissioner of Agriculture and I. O. Schaub, the new Director of Extension, joined the tour of County Agents to Western Carolina August 19-22. They were joined by G. H. Collingwood and W. R. Mattoon, Extension Foresters of the Forest Service. The party was under the direction of District Agents Millsaps and Goodman and one of its major purposes was to study farm forestry in relation to the agricultural problems of the region.

- - - - -

On July 21 Mr. Kneipp, Chief of Branch of Lands, U. S. Forest Service, took charge of his new office of Executive Secretary of the National Conference on Outdoor Recreation, the duties of which office he handled during the meeting of the Conference in Washington last May. The appointment is for a temporary period only, during which Mr. Kneipp will organize the work and get it started.

- - - - -

Arthur T. Upson, Chief of the Section of Industrial Investigations, Forest Products Laboratory, is another Forest Service employee to be taken by lumber interests. On July 1 he joined the staff of the National Lumber Manufacturers' Association.

- - - - -

Raymond E. Rendall, former blister rust agent in Massachusetts in 1919, is now handling the 10,000 acre tract of woodland belonging to Bates College of Lewiston, Maine. He has recently received a permit for bringing into the State 1,000 two-year-old white pine seedlings.

--Blister Rust News.

- - - - -

The death of Forest Supervisor Grenville F. Allen of the Rainier National Forest on August 16 removed from the Forest Service one of the small remaining group of Forest officers who came to the Service when the Forests were transferred from the Department of the Interior in 1905. He had the unusual distinction of having held from the beginning of his connection with the Government service in May, 1902, the position of Supervisor on the same Forest.

- - - - -

ARTICLES, BIBLIOGRAPHIES AND PUBLICATIONS

Let There Be Light.....

"The handmaiden of all modern research is bibliography. Good research work can only be built upon the foundations laid by previous workers, and without the aid of bibliography the student is lost. He cannot know where to begin his investigations and can but grope blindly, conscious only of what is immediately to hand and ignorant of all round him and all that has gone before. Without bibliographical aid his research for references is inevitably imperfect and the results of his investigations will reflect these imperfections."--Publishers' Circular of American Museum of Natural History.

What is Faith Without Works?

A list of 177 titles of works on forestry in English has just been prepared by Miss Helen E. Stockbridge, librarian of the Forest Service, which should be of value to city and school libraries in covering this subject adequately. As every phase of forestry and of forest products is covered, many individuals interested in these lines will be able to use the list to check up their own reference shelves. The list, which is being sent out by the Forest Service on request, covers the subjects of general forestry; forest botany; care of shade trees; forest research; forest measurements; the growth, development, and management of forests; forest planting; protection from fire, insects, and disease; valuation and finance of forestry; general administration policies; the utilization of forests and of timber; wood technology; and wood preservation and seasoning.

List of Publications Issued by the Forest Service During the Fiscal Year Ending June 30, 1924

- Dept. Bul. 1176 - Some Results of Cutting in the Sierra Forests of California
" " 1200 - The Natural Regeneration of Douglas Fir in the Pacific Northwest
" " 1241 - How the United States Can Meet Its Present and Future Pulpwood Requirements
Dept. Cir. 292 - Slash Disposal in Western White Pine Forests in Idaho
" " 295 - Basic Grading Rules and Working Stresses for Structural Timbers
Farm. Bul. 1417 - Idle Land and Costly Timber
Map Folder - Bighorn National Forest - Wyoming
" " - Carson National Forest - New Mexico
" " - Triangle Trips in the Cool Cascades - Oregon

Map Folder - Chelan National Forest - Washington
" " - National Forests of the Clearwater Region - Nezperce -
Selway - Clearwater - Idaho
" " - Cochetopa National Forest - Colorado
" " - Coconino National Forest - Arizona
" " - Colorado National Forest
" " - Colville National Forest - Washington
" " - Datil National Forest - New Mexico
" " - Fremont National Forest - Oregon
" " - Gila National Forest - New Mexico
" " - Gunnison National Forest - Colorado
" " - Harney National Forest - South Dakota
" " - Medicine Bow National Forest, Wyoming
" " - Minnesota National Forest
" " - Mount Baker National Forest - Washington
" " - Mount Hood National Forest - Oregon
" " - Olympic National Forest - Washington
" " - Nebraska National Forest
" " - The Oregon Caves
" " - Road and Recreation Map of Oregon (Revision)
" " - Pisgah National Forest - North Carolina
" " - Rainier National Forest - Washington
" " - Routt National Forest - Colorado
" " - Santa Fe National Forest - New Mexico
" " - Santiam National Forest - Oregon
" " - Shoshone National Forest - Wyoming
" " - Siskiyou National Forest - Oregon
" " - Snoqualmie National Forest - Washington
" " - Tonto National Forest - Arizona
" " - Umatilla National Forest - North and South Halves - Oregon
" " - Umpqua National Forest - Oregon
" " - The National Forest of Utah
" " - Wenatchee National Forest - Washington
" " - Whitman National Forest - Oregon
" " - An Ideal Vacation Land - The National Forests of Oregon
Misc. Cir. 7 - Forest Fire Prevention Manual for the School Children
of California
" " 9 - The National Forests of the Southern Appalachians -
What They Mean to the East and South
" " 8 - Demonstration Courses in Kiln Drying - Boxing and Crating -
Gluing of Wood, etc.
Misc. O-9 --Information Regarding Employment on the National
Forests (revision)
Misc. Cir. 15 - Importance of Forestry and the National Forests -
District 3
Misc. Cir. 19 - Forest Fires in the Intermountain Region
Yearbook Ext. 886 - Timber: Mine or Crop?
" " 889 - Forest Statistics
Unnumbered Publications - Area Table - 1923
" " - Law Enforcement on National Forests -
California Districts
" " Report of the Forester, 1923

Lighting the Lamps in Indiana

At the present time we have one publication which is perhaps used more in botany and dendrological work in schools of this State than all of our other publications together - "The Trees of Indiana" - by Chas. C. Deam, the State Forester. It is a bound volume and is illustrated with 135 cuts of the foliage and fruits of native forest trees.

Mr. Deam has just completed the manuscript for a companion book on the "Shrubs of Indiana" which will be illustrated with 145 cuts of the foliage, flowers, and fruit of our native shrubs. We hope to have this publication off the press some time this fall.

Other bulletins and pamphlets available for distribution from this office which are of value to teachers and students, particularly of this State, are:

Indiana Woodlands and Their Management - Bulletin #5
The Planting and Care of Shade Trees - Forestry Folder #3
The Black Walnut - Forestry Folder #4
Guide to the Clark Co. State Forest - Bulletin #5

The latter publication is of interest in that it shows the results of experimental plantings made on typical "Knob" land in southern Indiana.

We are expecting to inaugurate a similar set of experimental plantings on more fertile limestone land in south central Indiana within the next year or two.--George R. Philips, Assistant State Forester, Indianapolis, Ind.

Widening the Circle of Knowledge

Miss Helen E. Stockbridge, Service Librarian at Washington, reported that during the past year 794 new books were added to the library. The total number of books and pamphlets is 23,967.

She also reported that several new special bibliographies have been prepared for distribution, and others have been brought down to date during the year. Among the most important of these are "Forest Problems in the Northeastern States," "Woodlot Forestry," "Erosion," "Thinning," and "Some Books on Forestry in English."

Articles in Print From the Forest Experiment Stations

- Forest Redemption of Michigan. A. E. Wackerman. Lumber World Review, January 10, 1924.
- Reproduction with Fire Protection in the Adirondacks. J. Kittredge, Jr., and H. C. Belyea. Journal of Forestry, Dec. '23.
- Objectives of the Forest Experiment Station. J. Kittredge, Jr., North Woods. October-November, 1923.
- Henry Ford's Logging Operation. J. A. Mitchell, American Lumberman. January 12, 1924.
- Current Growth in Norway Pine. T. S. Hansen. Journal of Forestry. December, 1923.
- A Lumberman Who Knows His Trees. R. D. Forbes, American Forestry. November, 1923.
- Comments on Investigations of Tapers as a Factor in the Measurement of Standing Timber. F. S. Baker. Journal of Forestry. January, 1924.
- Forest Entomological Problems in the Lake States. S. A. Graham. (Entomology - Lake States.) Journal of Forestry, Jan. '24.
- Lake States Forest Experiment Station and Its Field. R. Zon. (Lake States.) Lumber World Review, November 10, 1923.
- Proposals for Western Pine Regions, R. H. Weidman. (Priest River.) Lumber World Review, December 25, 1923.
- The Need of an Organization for the Collection of Forest Statistics. R. Zon. (Lake States.) Cornell Forester, 1923, pp. 11-23.
- Biotic Factor in Forestry. E. N. Mumms. Scientific Monthly. March, 1924.
- Practicable Steps in the Douglas Fir Region. T. T. Munger. Lumber World Review. December 25, 1923.
- Federal Proposals in the Sierras. S. B. Show. Lumber World Review. December 25, 1923.
- Relation of Weather Forecasts to the Prediction of Dangerous Forest Fire Conditions. R. H. Weidman (Priest River.) Monthly Weather Review, November, 1923; 563-564.
- Lightning and Forest Fires in California. S. B. Show. Monthly Weather Review, November, 1923; 567-569.

- How Weather Forecasting Can Aid in Forest Fire Control. Howard R. Flint. Monthly Weather Review, November, 1923; 569.
- Evaporation as a Simple Index to Weather Conditions. Carlos G. Bates (Fremont). Monthly Weather Review, November, 1923; 570-571.
- Atmospheric Humidity and Forest Fires. J. V. Hofmann (Wind River). Lumber World Review, December 25, 1923.
- The Lake States Forest Experiment Station and the Mining Industry. J. A. Mitchell (Lake States). Iron Ore (Ishpeming, Michigan), January, 1924.
- A Silvical Comparison of the Pacific Coast and Rocky Mountain Forms of Western Yellow Pine. C. F. Korstian. American Journal of Botany, May, 1924.
- The Forest Fire Season at Different Elevations in Idaho. J. A. Larsen, Idaho Forester, 1924.
- Natural Reproduction of Western Yellow Pine. G. A. Pearson, Dept. Bulletin #1105. Reprint.
- Some Results of Experimental Forest Planting in Northern California. S. B. Shaw, Ecology. January, 1924.
- A Chance for Reforestation. F. W. Haasis. American Forests and Forest Life. May, 1924; 298-300.
- Windbreaks as a Farm Asset. C. G. Bates. Revision of Farmers' Bulletin #788.
- Circumventing Delayed Germination in the Nursery. W. G. Wahlenberg. American Lumberman, May 3, 1924.
- Forests of Maine. S. T. Dana. Bulletin #2, Maine Forest Service.
- A New Hickory for Florida. G. H. Sudworth, American Forests and Forest Life, June, 1924.
- Putting Fire Weather to Work. J. V. Hofmann, Timberman, May, 1924.
- The Northeastern Forest Experiment Station. S. T. Dana. Paper Mill and Wood Pulp News, April 12, 1924.
- Forestry Tests at Starke, Florida. L. Wyman, Southern Lumber Journal, April 1, 1924.
- Forests of North Georgia. E. F. McCarthy. The Cypress Knee, Georgia School of Forestry, 1924.

Slash Disposal in Western White Pine Forests in Idaho. Larsen and
Loudermilk. Dept. of Agriculture Circular #292.

The California Forest Situation. E. N. Mums. Electra Fruit and
Garden, May, 1924.

The Prediction of Yields of Young Western White Pine Timber in
Idaho. Edward C. Behre. Idaho Forester, 1924.

Forest Research. E. H. Frothingham. Journal of Forestry, April, 1924.

- - - - -

Among the books in preparation by the Institute for Research
in Land Economics and Public Utilities, located at the University of
Wisconsin, is one by H. S. Graves, "Economics of Forest Land," and
another by C. R. Chambers on "Farm and Forest Land Values."

- - - - -

A publication now in press is "Fungous Diseases of the World
and Their Host Plants," by J. A. Stevenson, Pathological Inspector
of the Federal Horticultural Board. This is the first publication
of its kind attempted and will be of great value in determining
for quarantine purposes the principles of important plant diseases
and their hosts in foreign countries. It will also be valuable as
a reference work for authors.

- - - - -

Yale University has published as Bulletin No. 10 of the School
of Forestry a booklet entitled, "Nursery Investigations with Special
Reference to Damping off," by J. W. Toumey and T. T. Li.

- - - - -

SOUTHERN WOODLAND TREES - By James Berthold Sperry, M. S. 12 mo.,
214 pages, illustrated, bound in cloth, \$1.20. World Book Com-
pany, Yonkers-on-Hudson, N. Y.

This volume by Mr. Sperry, County Vocational Supervisor, Penn-
sylvania State Department of Education, is a guide to the identifica-
tion of trees and woods to accompany "Farm Woodlands," previously
published.

- - - - -

A publication of interest to Foresters now in press is "Trees for Roadside Planting," by F. L. Mulford of the Office of Horticultural and Pomological Investigations, Bureau of Plant Industry, Lists of native and exotic trees are suggested for roadside planting in each of 32 regions into which the United States is divided on the basis of soil conditions, rainfall, and temperature.

- - - - -

The Southern West Virginia Forest Fire Protective Association has recently published an attractive booklet giving the history, accomplishments, and aims of the organization which has been in existence since 1916.

- - - - -

Hicock, Henry W. "Better Forests for Connecticut." Forestry Publications No. 14. Connecticut Agricultural Experiment Station. Mr. Hicock summarizes the "benefits to be expected from the improvement of the forest."



